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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2121	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/075,164	ADACHI ET AL.	
	Examiner	Art Unit	
	Adrian L. Kennedy	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *4/23/02* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Examiner's Detailed Office Action

1. This Office Action is responsive to **Amendment After Non-Final**, filed **June 7, 2007**.

2. **Claims 1-13** were originally presented.

3. **Claims 1-8 and 11-13** were amended.

4. **Claims 9-10** were previously presented.

5. **Claims 14 and 15** were added.

6. **Claims 1-15** will be examined.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 1, 12, 13 and 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner has thoroughly reviewed the applicant's disclosure, and has found no support for the claimed limitation of "creating location information" (Claim 1) and "data being different from the list of points" (Claim 1, 12, 13 and 14). Furthermore, the applicants are required to either point to support for the claiming in the applicant's disclosure, or remove this limitation from the claimed invention in subsequent correspondence.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner takes the position that the applicant's claiming of "the other digital map" is indefinite because of the fact that as claimed, the word "other" can refer to either "a digital map" of Claim 13, or the "another digital map" of Claim 13. To expedite prosecution, the examiner has asserted the word "other" should be "a". In subsequent communications, the applicant is required to either confirm or deny this assertion.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-3, 5-7 and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (USPN 6,249,740).

Regarding claim 1:

Ito et al. teaches,

(Currently amended): A method for identifying a location using a first digital map (C 3, L 29-34; "*navigation data stored in the data base*") that is different from a second digital map (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*"; The examiner takes the position that the "navigation data stored in the data base" is inherently different from the "detailed navigation data [on] the navigation apparatus". This position is supported by the applicant's lack of definition of the term in the applicant's disclosure, and the examiner's asserted definition of the term.), comprising the steps of:

creating location information based on the first digital map by a transmitting system (C 3, L 14-28; "*the navigation apparatus is adapted to transmit at least data concerning the current position of the vehicle*"), the location information including:

a list of points on a road segment of the first digital map, the points representing a road shape of the road segment (C 3, L 65-67; "*the navigation data includes at least one of map data, road data, intersection data, area guidance data and voice guidance data*"; The examiner takes the position that in teaching the navigation data comprising "map data" and "road data", Ito et al. anticipates the applicant's claimed "points representing a road shape of [a] road segment"); and

attribute information on said points (C 9, L 19-25);

transmitting the location information from the transmitting system (C 3, L 14-28; "*the navigation apparatus is adapted to transmit at least data*");

receiving said location information (C 3, L 14-19; "*navigation apparatus of a moving apparatus*") by a receiving system having the second digital map (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*"), the second digital map including data representing the road segment (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*"; The examiner takes the position that in teaching the navigation data being on the navigation apparatus, and the navigation data comprising map and road data in Column 3, Lines 14-28, Ito et al. anticipates the applicant's claimed "second digital map including data representing the road segment".), said data being different from the list of points (C 9, L 38-42; "*a position data which has been measured by a GPS*"; Having not defined the term "different", and having not disclosed what the applicant means by claiming that the "list of points" is "different" from the "data", the examiner has asserted a definition of these terms and phrases. Based on this assertion, the examiner has found that Ito et al. anticipates the applicant's claim "list of points" being "different".); and

performing matching of said points with said data to identify said road segment on the second digital map (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*") using coordinates information of the points and the attribute information included in the location information (C 19, L 66-67; C 20 L 1-12; Fig. 11).

Regarding claim 2

Ito et al. teaches,

(Currently amended): The method wherein the list of points includes coordinate data (C 17; L 35-39; Fig. 7) indicating positions of nodes (C 9, L 26-32; disclosed as intersection) and interpolation points (C 9, L 20-21; disclosed as nodes) included in said road segment arranged sequentially.

Regarding claim 3:

Ito et al. teaches,

(Currently amended): The method wherein an interpolation point that contributes less to shape matching is omitted from the interpolation points included in said road segment (C 8, L 31-35).

Regarding claim 5:

Ito et al. teaches,

(Currently amended): The method wherein said list of points comprises coordinate data of a member chosen from a group of nodes and interpolation points included in said road segment, the coordinate data being represented using absolute coordinates and data of members of nodes and interpolation points excluding said chosen member, the data being represented using relative coordinates (C 23, L 26-33; Disclosed as geographical coordinates).

Regarding claim 6:

Ito et al. teaches,

(Currently amended): The method wherein said attribute information includes at least one information item chosen from a group consisting of road type code, road number, toll highway code, number of traffic lanes, regulation information, road width, number of connecting links to a crossing node, and connection angle of each connecting link to a crossing node (C 9, L 19-25; Fig. 25).

Regarding claim 7:

Ito et al. teaches,

(Currently amended): The method wherein said attribute information includes accuracy information relating to a digital map data used to generate the location information (C 14, L 39-46; Accuracy information is disclosed by transmitting an outline map that is scaled down version of a map).

Regarding claim 11:

Ito et al. teaches,

(Currently amended): The method wherein the location information includes relative information indicating an on-road location in said road segment (C 17, L 53-55, and L 59-62), the method further comprising a step of performing identifying the on-road location in the road segment using the relative information (C 20, L 4-11) by the receiver (C 27, L 28-32).

Regarding claim 12:

Ito et al. teaches,

(Currently amended): A transmission apparatus (C 1, L 9-17; "*navigation base apparatus provided at the navigation base*") comprising:

a digital map (C 3, L 65-67; "*navigation data includes at least one of map data, road data, intersection data, area guidance data and voice guidance data*");

an information generator that generates, based on the digital map, location information (C 3, L 29-34; "*the navigation base apparatus is adapted to be able to extract detailed navigation data*"; The examiner takes the position that based on this teaching, the base apparatus is the information generator) including:

a list of points on a road segment of the digital map, the points representing a road shape of the road segment and attribute information on said points (The examiner takes the position that the above claimed information including a "list of points on a road segment" are all anticipated by navigation data as taught in Column 3, Lines 65-67 of the invention of Ito et al.); and

a transmitter that transmits the location information (C 3, L 14-28; "*the navigation apparatus is adapted to transmit at least data*") to a receiving apparatus (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*") having a digital map including data representing the road segment, said data being different from the list of points (C 9, L 38-42; "*a position data which has been measured by a GPS*"; Having not defined the

term "different", and having not disclosed what the applicant means by claiming that the "list of points" is "different" from the "data", the examiner has asserted a definition of these terms and phrases. Based on this assertion, the examiner has found that Ito et al. anticipates the applicant's claim "list of points" being "different".).

Regarding claim 13:

Ito et al. teaches,

(Currently amended): A receiving apparatus comprising:

a receiver that receives location information (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*") including:

list of points on a road segment of the digital map the points representing a road shape of the road segment and attribute information on said road segment from a transmission apparatus having a digital map (C 3, L 65-67; "*navigation data includes at least one of map data, road data, intersection data, area guidance data and voice guidance data*");

another digital map including data representing the road segment, said data being different from the list of points (C 9, L 38-42; "*a position data which has been measured by a GPS*"; Having not defined the term "different", and having not disclosed what the applicant means by claiming that the "list of points" is "different" from the "data", the examiner has asserted a definition of these terms and phrases. Based on

this assertion, the examiner has found that Ito et al. anticipates the applicant's claim "list of points" being "different".); and

an identifying unit that performs matching of said points with said data, to identify said road segments on the other digital map using coordinates information of the points and the attribute information included in the location information (C 19, L 66-67; C 20 L 1-12; Fig. 11).

Regarding claim 14:

Ito et al. teaches,

(New): A method for identifying a location using a first digital map (C 3, L 29-34; "*navigation data stored in the data base*") that is different from a second digital map (C 3, L 29-34; "*detailed navigation data [on] the navigation apparatus*"; The examiner takes the position that the "navigation data stored in the data base" is inherently different from the "detailed navigation data [on] the navigation apparatus". This position is supported by the applicant's lack of definition of the term in the applicant's disclosure, and the examiner's asserted definition of the term.), the method comprising:

creating a list of points on a first road segment (C 9, L 38-42; "*a position data which has been measured by a GPS*"; The examiner takes the position that the creation of the "points" claimed by the applicant, is inherent in that creation of the position data taught by Saito et al.) of the first digital map, and creating attribute information on said points, wherein each of the points is represented by coordinates and the list of points represents a shape of the first road segment (C 3,

L 65-67; "*navigation data includes at least one of map data, road data, intersection data, area guidance data and voice guidance data*"; The examiner takes the position that the above claimed information including a "list of points on a road segment" are all anticipated by navigation data as taught in Column 3, Lines 65-67 of the invention of Ito et al.); and

identifying a second road segment on the second digital map corresponding to the first road segment, said identifying including using the list of points and the attribute information, the second digital map including data representing the second road segment, the data being different from the list of points (C 19, L 66-67; C 20 L 1-12; Fig. 11).

Regarding claim 15:

Ito et al. teaches,

(New): The method wherein said attribute information includes at least one information item chosen from a group consisting of road type code, road number, toll highway code, number of traffic lanes, regulation information, road width, number of connecting links to a crossing node, and connection angle of each connecting link to a crossing node (C 3, L 65-67; "*navigation data includes at least one of map data, road data, intersection data, area guidance data and voice guidance data*"; The examiner takes the position that in broadly teaching "map data" and "road data", Ito et al. anticipates the applicant's specific claimings of "traffic lanes" and "road width").

13. Claims 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al. (USPN 4,982,332).

Regarding claim 8:

Saito et al. teaches,

(Currently amended): Method for thinning-out a plurality of points representing a road shape (C 1, L 38-44; "*road data generating method*"; The examiner takes the position that road data anticipates a plurality of point representing a road shape) by an information transmission system, comprising steps of:

providing a string of coordinates defining said plurality of points (C 1, L 47-49; "*point on the road in a map in numerical for and memorizing the as map data*" and C 1, L 49-56; "*detecting coordinates of the present position of the vehicle*"; The examiner takes the position that in teaching the determination of the current position, and the storing of previous points, Saito et al. anticipates the applicant's claimed invention.), said plurality of points including an interpolation point, P_n, and a preceding interpolation point P_{n-1};

determining a bearing deviation, d_n (C 3, L 49-54; "*error of compass direction of the present position with respect to the nearest line , that is* $|\theta_s - \theta_a|$"), of the interpolation point, P_n (C 3, L 39-45; "*co-ordinates* P_s (X_s, Y_s) *of the present position*"), from the preceding interpolation point P_{n-1} (C 1, L 45-49; "*point* P_a (X_a, Y_a) *on line which is nearest to the present position*");

determining whether the bearing deviation, d_n, (C 3, L 49-54; "*error of compass direction of the present position with respect to the nearest line , that is* $|\theta_s - \theta_a|$") is smaller than a predetermined angle, α (C 3, L 49-54; "*smaller than* θth_1"); determining whether a distance, g_n (C 3, L 45-49; "*distance la to a point* P_a (X_a, Y_a) *on line which is nearest to the present position*"), of the interpolation point, P_n, from the preceding interpolation point, P_{n-1}, is shorter than a predetermined length, β (C 3, L 49-54; "*CPU 6 judges as to whether the calculated distance la is equal to or smaller than a predetermined value* lth_1"); and

omitting the interpolation point, P_n (C 3, L 39-45; "*co-ordinates* P_s (X_s, Y_s) *of the present position*"), from the string of coordinates (C 4, L 10-40; "*locus-data*") if both $d_n > \alpha$ (C 3, L 55-59; "$|\theta_s - \theta_a| \leq \theta th_1$") an $g_n < \beta$ (C 3, L 65-68; "$la \leq lth_1$") as determined in the determining steps (The examiner takes the position that coordinate data in the invention of Saito et al. is registered as either "locus data" or "learning data" if the position deviation and the distance traveled is less than a certain predetermined value it is registered as learning data, and if the coordinate is learning data it is omitted from the list of locus data (C 1, L 45- C 2, L 5));

transmitting the string of coordinates from which the interpolation point, P_n, is omitted from the information transmission system (The examiner takes the position that the string of coordinates from which the point P_n is omitted is equivalent to new road data, and that the registered road data is stored on a second storage medium (C 5, L 10-13; "*road data registered in the manner explained above is then stored into the second storage medium*") which it the first time the

information is transmitted in the system, and then the information is transmitted to a first storage medium which contains all the new road data (C 5, L 18-22; "*one of the first storage medium 9 carrying new road data*").

Regarding claim 9:

Saito et al. teaches,

(Previously presented): The method further comprising a step of incrementing the value of n by 1 and then repeating the steps of determining and the step of omitting.

The examiner takes the position that by stating that the invention detects a vehicle's current position and generates road data every time a certain distance is traveled in Column 1, Lines 49-55, it is inherent that invention would increment the nth value by 1.

Regarding claim 10:

Saito et al. teaches,

(Previously presented): The method wherein each of the points (C 3, L 39-45; "*co-ordinates* P_s") is represented using relative information based on one of the plurality of points (C 3, L 39-45; "(X_s, Y_s)").

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (USPN 6,249,740) in view of Saito et al. (USPN 4,982,332).

Regarding claim 4:

Ito et al. teaches the method of claim 3, but fails to teach an interpolation point being omitted from said interpolation points where a change in bearing is less than a predetermined angle with respect to bearing from an adjacent interpolation point or node and a distance from said interpolation point or node is less than a predetermined distance.

However, Saito et al. does teach,

(Currently amended): The method wherein said interpolation point is omitted from said interpolation points (The examiner takes the position that coordinate data in the invention of Saito et al. is registered as either "locus data" or "learning data" if the position deviation and the distance traveled is less than a certain predetermined value it is registered as learning data, and if the coordinate is learning data it is omitted from the list of locus data (C 1, L 45- C 2, L 5)) where a change in bearing (C 3, L 49-54; "*error of compass direction of the present position with respect to the nearest line , that is* $|\theta_s - \theta_a|$") is less than a predetermined angle (C 3, L 49-54; "*smaller than* θth_1") with respect to bearing from an adjacent interpolation point or node (C 1, L 45-49; "*point* P_a (X_a, Y_a) *on line which is nearest to the present position*") and a distance from said interpolation point or node is less than a predetermined distance (C 3, L 49-54; "*CPU 6 judges as to*

whether the calculated distance la is equal to or smaller than a predetermined value lth_1").

Both Ito and Saito et al. are in the art of navigation systems. Therefore, it would have been obvious to one skilled in the art at the time of invention to combine the invention of Ito with the invention of Saito et al. for the purpose of generating road data (*Saito et al.*; C 1,L 7-9; "*the present invention relates to a method of generating road data*") for use in a navigation system which makes use of road data (*Ito*; C 3, L 65-67; "*navigation data includes at least one of map data, road data, intersection data, area guidance data and voice guidance data*").

Response to Arguments

Applicant's arguments filed on June 7, 2007 have been fully considered but are found to be non-persuasive. The unpersuasive arguments made by the Applicant are stated below:

In reference to Applicant's argument:

> As amended, claim 1 requires two separate and *different* digital maps. Location information is created based on the first digital map and transmitted. [...]The second map includes data representing the road segment, said data being *different* from the list of points.

Examiner's response:

The examiner has carefully reviewed the applicant's newly claimed invention in light of the applicant's disclosure, and respectfully asserts that while the amended claims do indeed require "different" maps, this claimed limitation is not supported by the applicant's disclosure. Additionally, the examiner takes the position that the applicant's claiming the transmitted data

"being *different* from the list of points", contradicts applicant's disclosure which teaches that the "location information transmission method uses nodes and interpolation point for nodes included in a digital map database" in Paragraph 0043. Furthermore, in light of the above arguments, the applicant's arguments are found to be non-persuasive.

In reference to Applicant's argument:

> As further described by Ito (column 3, lines 29-34), the "detailed navigation data" is extracted from "navigation data stored in the data base" and this, cannot be *different* as required by amended claim 1.

Examiner's response:

The examiner has considered that applicant's above arguments in regard to the "detailed navigation data" and "navigation data stored in the data base" not being different, and has found applicant's arguments not to be persuasive. This position is based on the applicant's lack of a definition of the term "different" in the applicant's disclosure. Furthermore, because of the applicant's lack of a definition of the term, the examiner has asserted a definition. Additionally, based on a lack of use of the term in the applicant's disclosure, in reference to "digital map(s)", the examiner has used a broadest reasonable interpretation of the term, and has found that Ito's teachings anticipate applicant's claimings.

In reference to Applicant's argument:

> It is respectfully submitted that Sato does not teach a "method of thinning-out a plurality of points representing a road shape" and "providing a string of coordinates defining said plurality of points, said plurality point including an interpolation point, P_n, and a preceding interpolation point P_{n-1};" and "determining *a bearing deviation, d_n, of the interpolation point, P_n, from the preceding interpolation point P_{n-1}*," as required. [...] It is respectfully pointed out that [t]he "error of compass direction" is not a deviation between two consecutive points in a string of coordinates representing a road shape, as in claim 8.

Examiner's response:

The examiner has considered the applicant's arguments as stated above in regards to independent claim 8, and respectfully takes the position that the "error of compass direction" anticipates the applicant's claimed "bearing deviation". This position is supported by the applicant teaching and claiming that "bearing deviation" is based on the angle between links in Paragraph 0046 and a previous point and Saito et al. teaching his "error of compass direction" being based on a distance to a point Pa (Applicant previous point), and the present position in Column 3, Line 45-49. Additionally, in regards to applicant's argument that the deviation is not based on "two consecutive points on a string of coordinates representing road shape", Saito et al. teaches in Column 3, Lines 39-45, that after traveling distance, his invention determines "co-ordinates" of the present position. Furthermore, in light of the above arguments, the applicant's arguments are found to be non-persuasive.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrian L. Kennedy whose telephone number is (571) 270-1505. The examiner can normally be reached on Mon -Fri 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALK

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